ADDITIONAL SHEET

CCR# 04-0399   **Rev: —**   **Originator:** Maryellen Corbett.
Telephone: 301-925-0703   **Office:** COTS
Title of Change: Delivery of WU-FTP Security Patch for Sun and SGI

This patch delivery includes WU-FTP Security Update for Sun and SGI hosts.

The following files are provided with this delivery:
Release binary file **wu_ftpd_40744** for Solaris.
- Checksum is 1002184331
- File size is 3706072.

Release tar file **wu-ftpd-2.6.2-sgi-0714.tar.gz** for IRIX 6.5.22.
- Checksum is 684603282
- File size is 136578.

This software delivery contains solutions for the following NCRs:

NCR Number	Subsystem	Sev	State	Site	Description
ECSed40744	OPS_Dpool	2	V	LaRC	Customized wu-ftp: downloads fail with no space left on device
ECSed40713	OPS_Secure	3	T	EDF	Fix vulnerabilities in Customized code wu-ftpd
ECSed40731	OPS_Secure	3	T	EDF	Fix vulnerabilities in Customized code wu-ftpd

COTS INSTALLATION INSTRUCTIONS

The following provides the installation procedures to install the WU-FTP Security Updates on the following Hosts.

SGI Installation Hosts

Site	Host Name	Subsystem	Host Function
EDC	e0acg11	DSS	APC Server
GSFC	g0acg01	DSS	APC Server
LaRC	l0acg02	DSS	APC Server
NSIDC	n0acg01	DSS	APC Server
VATC	t1acg04	DSS	APC Server
PVC	p0acg05	DSS	APC Server

ECS/EMD

ADDITIONAL SHEET

Title of Change: Delivery of WU-FTP Security Patch for Sun and SGI

Sun Installation Hosts

Site	Host Name	Subsystem	Host Function
EDC	e0dps01	DPL	Data Pool Server
GSFC	g0dps01	DPL	Data Pool Server
LaRC	l0dps01	DPL	Data Pool Server
NSIDC	n0dps01	DPL	Data Pool Server
PVC	p2dps01	DPL	Data Pool Server
VATC	t1mss06	MSS	Applications Server

Prerequisites

Estimated installation time: 15 mins. for a novice administrator

Uninstall Instructions

None

Installation Instructions:

Sun Host Installation Instructions:

Prerequisites:

Installation steps below assume previous installation of WU-FTD 2.6.2 has been successfully been completed as identified in Customized WU-FTPD for Data Pool Hosts for the EOSDIS Core System (ECS) (PSR document #914-TDA-274).

Installation:

1. Login as root to install the new binary:

2. Back up current in.ftpd file /usr/local/sbin/in.ftpd to a backup directory of your choice:

    ```
    # cp /usr/local/sbin/in.ftpd </backup_directory path>/in.ftpd.old ↵
    ```

3. Obtain binary "wu_ftpd_40744", placing binary in staging directory of your choice and verifying checksum returned is **1002184331**:

    ```
    # checksum </staging_dir>/wu_ftpd_40744 ↵
    ```

4. Move the new binary "wu_ftpd_40744" into directory /usr/local/sbin/, renaming binary as in.ftpd:

    ```
    # mv </staging_dir>/wu_ftpd_40774 /usr/local/sbin/in.ftpd ↵
    ```

ADDITIONAL SHEET

SGI Host Installation Instructions:

Prerequisites:

Installation steps below assume previous installation of WU-FTD 2.6.2 has been successfully been completed as identified in WU-FTPD Version 2.6.2 Update for Sun and SGI for the ECS Project (PSR document #914-TDA-230).

Installation:

1. Login to SGI host as root.

2. Backup the old version using the command:

   ```
   #cp /usr/freeware/wuftpd/sbin/in.ftpd
   /usr/freeware/wuftpd/sbin/in.ftpd.pre0714↵
   ```

   Obtain the tar file wu-ftpd-2.6.2-sgi-0714.tar.gz, placing it in a staging directory of your choice and verifying that the checksum returned is **684603282**

   ```
   # cd </staging_directory> ↵

   # checksum wu-ftpd-2.6.2-sgi-0714.tar.gz ↵
   ```

3. Decompress the distribution:

   ```
   #/usr/sbin/gunzip wu-ftpd-2.6.2-sgi-0714.tar.gz ↵

   # tar xvf wu-ftpd-2.6.2-sgi-0714.tar.gz ↵
   ```

4. Copy the in.ftpd file in this tar file to /usr/freeware/wuftpd/sbin/in.ftpd:

   ```
   #cp in.ftpd /usr/freeware/wuftpd/sbin/in.ftpd ↵
   ```

5. Hup the inet daemon using the command:

   # killall -HUP inetd ↵

6. From a different window and from a different host and as a normal user, ftp to the updated server.

7. Logoff from all windows used in the installation.

Custom Code Integration

None.

Interrogation Checkout

Sun Interrogation Checkout:

CCR# 04-0399   **Rev: —**   **Originator:** Maryellen Corbett.
Telephone: 301-925-0703   **Office:** COTS
Title of Change: Delivery of WU-FTP Security Patch for Sun and SGI

Interrogation for Data Pool hosts will use file size to identify the correct installation of customized WU-FTP.   The ***in.ftpd*** binary in the directory **/usr/local/sbin/** will be interrogated for the filesize 3706072 bytes.

Interrogation will use the following query:

/usr/ucb/ls –la /usr/local/sbin/in.ftpd | /usr/bin/awk `{print $5}`

The interrogation should return: 3706072

Interrogation will also verify that the /datapool/OPS/usr/tools directory exists.

SGI Interrogation Checkout:

Interrogation will use the following query:

/usr/ucb/ls –la /usr/local/sbin/in.ftpd | /usr/bin/awk `{print $5}`

The interrogation should return: 136578

Backout Instructions

Restore previous in.ftpd file saved during the installation.

Test Results:

Testing has been successfully completed for NCR ECSed40744 entitled Customized wu-ftp: downloads fail with no space left on device.

For each test, the DPL database was queried to find a large file which had checksum. On the command line, the 'ipcs -ma" command was ran to see if there were any existing memory leaks prior to the download. Next, an anonymous ftp session was opened on p2dps01 (the wu-ftp host) and downloading of the binary file was initiated. For testing purposes, the file transfer was interrupted using the CTRL-C command in order to test for a memory leak. At this point, I ran the 'ipcs -ma" command again and there were not any memory leaks. The test was repeated 3 times with the same successful results.

The following file was used for the initial test: on July 14, 2004.
/datapool2/OPS/user/fs1/ASTT/AST_EXP.001/2000.03.04/labtest_20137712801
with a file size of '363248839'. The test was successful and I was able to verify the NCR.

A subsequent test was conducted on 8/5/04 to verify that the memory leak still didn't occur:

Step 1 – Query the Data Pool database to find a large file and verify that the file exists on the datapool host.

SELECT directoryPath, fileName, fileSize FROM DlFile WHERE

(compChksum = NULL AND uncompChksum != NULL AND uncompChksumTypeId = 1) OR (compChksum = NULL AND uncompChksum != NULL AND uncompChksumTypeId = 2) OR (compChksum = NULL AND uncompChksum != NULL AND uncompChksumTypeId = 1) OR (compChksum = NULL AND uncompChksum != NULL AND uncompChksumTypeId = 2) ORDER BY fileSize DESC

.

Step 2 - Run the 'ipcs -ma" command to see if there were any existing memory leaks prior to the download.

Results:

IPC status from <running system> as of Thu Aug 5 17:39:19 EDT 2004 T   ID   KEY   MODE   OWNER   GROUP CREATOR   CGROUP NATTCH   SEGSZ CPID LPID ATIME   DTIME   CTIME Shared Memory:

p2dps01{cmshared}[383]-> ipcs -ma

Step 3 – Log on to the wu-ftp client as an anonymous user & initiate the download; During file transfer, do a "^C" to abort the file transfer while in progress.

p0ins02{cmshared}[203]-> ftp p2dps01 Connected to p2dps01.pvc.ecs.nasa.gov. 220 p2dps01.pvc.ecs.nasa.gov FTP server (Version wu-2.6.2(6) Tue Jul 6 18:05:29 EDT 2004) ready. Name (p2dps01:cmshared): anonymous 331 Guest login ok, send your complete e-mail address as password. Password: 230-** 230- 230-   U.S. GOVERNMENT COMPUTER 230-   If not authorized to access this system, disconnect now. 230- 230-   YOU SHOULD HAVE NO EXPECTATION OF PRIVACY 230-By continuing, you consent in your keystrokes and data content being monitored. 230- 230-** 230- 230 Guest login ok, access restrictions apply. ftp> cd ASTT/AST_EXP.003/1997.07.19 250 CWD command successful. ftp> bin 200 Type set to I. ftp> get pg-PR1A0000-1998030301_001_017.gz 200 PORT command successful. 150 Opening BINARY mode data connection for /bin/gzip. ^C 426 Transfer aborted. Data connection closed. 226 Abort successful local: pg-PR1A0000-1998030301_001_017.gz remote: pg-PR1A0000-1998030301_001_017.gz 81920 bytes received in 2.8 seconds (28.20 Kbytes/s)

ADDITIONAL SHEET

Step 4 - Run the 'ipcs -ma" command again to see if there were any new memory leaks after the file transfer was in progress.

```
p2dps01{cmshared}[385]-> !!
ipcs -ma
IPC status from <running system> as of Thu Aug  5 17:40:56 EDT 2004
T     ID   KEY     MODE      OWNER   GROUP CREATOR   CGROUP NATTCH     SEGSZ
CPID LPID ATIME  DTIME   CTIME
Shared Memory:
m      0 0x464    --rw-rw-rw-   root   root   root   root    5   2937408  208  7333 17:40:47
17:40:51 11:56:22
```

No Memory Leaks were detected!!! Test is successful

Regression Test Results

A regression test was conducted in the PVC/OPS mode to verify retrieval of uncompressed files via ftp client with gzip. All tests were successful and the results of one of the tests are below.

Test 1
Connected to p2dps01.pvc.ecs.nasa.gov.
220 p2dps01.pvc.ecs.nasa.gov FTP server (Version wu-2.6.2(6) Tue Jul 6 18:05:29 EDT 2004) ready.
Name (p2dps01:cmshared): anonymous
331 Guest login ok, send your complete e-mail address as password.
Password:
230-**
230-
230-   U.S. GOVERNMENT COMPUTER
230-   If not authorized to access this system, disconnect now.
230-
230-   YOU SHOULD HAVE NO EXPECTATION OF PRIVACY
230-By continuing, you consent in your keystrokes and data content being monitored.
230-
230-**
230-
230 Guest login ok, access restrictions apply.
ftp> cd /FS1/ASTT/AST_08.001/1997.11.13
250 CWD command successful.
ftp> bin
200 Type set to I.
ftp> get labtest_2013752255.gz
200 PORT command successful.
150 Opening BINARY mode data connection for /bin/gzip.
226 Transfer complete.
local: labtest_2013752255.gz remote: labtest_2013752255.gz
2881 bytes received in 0.026 seconds (108.11 Kbytes/s)

CCR# 04-0399   **Rev:** —   **Originator:** Maryellen Corbett.
Telephone: 301-925-0703   **Office:** COTS
Title of Change: Delivery of WU-FTP Security Patch for Sun and SGI

Test 2
p0ins02{cmshared}[202]-> ftp p2dps01
Connected to p2dps01.pvc.ecs.nasa.gov.
220 p2dps01.pvc.ecs.nasa.gov FTP server (Version wu-2.6.2(6) Tue Jul 6 18:05:29 EDT 2004) ready.
Name (p2dps01:cmshared): anonymous
331 Guest login ok, send your complete e-mail address as password.
Password:
230-***
230-
230-   U.S. GOVERNMENT COMPUTER
230-   If not authorized to access this system, disconnect now.
230-
230-   YOU SHOULD HAVE NO EXPECTATION OF PRIVACY
230-By continuing, you consent in your keystrokes and data content being monitored.
230-
230-***
230-
230 Guest login ok, access restrictions apply.
ftp> cd /FS1/ASTT/AST_L1A.003/1997.07.19
250 CWD command successful.
ftp> bin
200 Type set to I.
ftp> get pg-PR1A0000-1998030301_001_009.gz
200 PORT command successful.
150 Opening BINARY mode data connection for /bin/gzip.
226 Transfer complete.
local: pg-PR1A0000-1998030301_001_009.gz remote: pg-PR1A0000-1998030301_001_009.gz
1581730 bytes received in 12 seconds (128.27 Kbytes/s)